

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

From Pre-Service to Practicing Teacher:

Considering the Stability of Personal and Classroom Goals

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CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

Abstract

Research shows that personal and classroom goals are important for pre-service and practicing teachers' personal and professional outcomes; however, no research has examined changes to these types of motivation across the transition from student to teacher. This study followed pre-service teachers ($n = 47$) into practice and assessed changes in self-reported personal and classroom goals using surveys and focus groups. Correlations, repeated measures analysis of covariance, and reliable change indices were used to assess stability/change in the quantitative data. Qualitative data was analyzed for themes and largely supported the quantitative results. The results showed that teachers were at least as personally oriented towards mastery-approach in their practice as they were during their pre-service education but less personally performance focused. In terms of classroom goals, performance practices increased whereas mastery practices decreased, particularly for secondary school teachers. Although practicing teachers are personally mastery-oriented in their teaching, their intentions to establish classroom mastery goals appear difficult to enact in practice.

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

From Pre-Service to Practicing Teacher:

Considering the Stability of Personal and Classroom Mastery and Performance Goals

The transition from student to teacher is one that captivates many researchers and yet is difficult to understand. Although on the surface pre-service teachers simply move from one educational context to another, in reality these contexts represent highly different achievement environments. In Canada, post-secondary education, including teacher education, represents a competitive achievement setting in which students are regularly assessed, vie to win scholarships and honors, and need to secure strong reference letters. For pre-service teachers the pressure to excel as students may be at an all-time high because there are few job opportunities following graduation (Ontario College of Teachers, 2012). However, for those graduates who secure teaching positions the achievement environment shifts drastically. External evaluation of teaching is low in Canada relative to the United States and teachers share accountability with students, parents, and administrators (Canadian Teacher Federation, 2003). Nonetheless, the pressures to ensure their own pupils excel on standardized tests remain (Webber, Aitken, Lupart, & Scott, 2009). As a result of this shift, and because achievement goals are responsive to contextual influences (Elliot, 2005), new teachers may have to seriously re-examine some of their fundamental beliefs, which, although beneficial as pre-service teachers in an education program may be challenged by the realities of professional teaching. Thus, the purpose of this study was to examine two specific sets of motivational beliefs as a sample of pre-service teachers transitioned into school systems and became practicing teachers.

Achievement Goal Theory

In pursuing this agenda, I focused on achievement goal theory because it is one of the most influential approaches to the study of achievement motivation and is relevant across a wide

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

range of achievement settings (Kaplan & Maehr, 2007; Senko, Hulleman, & Harackiewicz, 2011). The influence of achievement goal theory may rest in the fact that goals are theorized to both shape the way individuals perceive the achievement setting and are shaped by the achievement setting in which the individual must function (Elliot, 2005). Thus achievement goals are particularly useful for the study of teachers because they both interpret their classroom context and shape their classroom context.

Although there are numerous ways to operationalize personal achievement goals, this study focused on the 2 x 2 framework articulated by Elliot (1999) thereby emphasizing four goals: mastery-approach is viewed as the desire to gain competence; performance-approach as the desire to demonstrate competence relative to others; mastery-avoidance is the desire to avoid incompetence; and performance-avoidance as the desire to avoid demonstrating incompetence relative to others (Elliot, 1999; Elliot & Murayama, 2008). In the 2 x 2 framework there is an inherent competitive component to the performance domain, which is important when considering how context influences goals (Elliot, 2005). Decades of research suggest that mastery-approach goals are associated with more adaptive outcomes relative to the other three types for students from kindergarten to university (e.g., Kaplan & Maehr, 2007) and for pre-service and practicing teachers (e.g., Nitsche, Dickhäuser, Fasching, & Dresel, 2011).

Extending the tenets of achievement goal theory to instructional practices, Ames (1992) identified certain teacher behaviors such as focusing on effort and revision that encouraged school-aged students to adopt mastery goals and others such as competition that encouraged them to adopt performance goals. Based on these practices, Ames produced a classification system of instructional actions that either reflected classroom mastery goal structures or classroom performance goal structures (TARGET; Ames, 1992; Kaplan & Maehr, 2007). From

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

the perspective of school-aged students, classroom goal structures reflect the context in which they enact their personal achievement goals. The same is not true for practicing teachers, who are indeed responsible for enacting classroom goal structures. For teachers other contextual factors may influence both their personal and their classroom goals. Thus, in this study I focus on how changes implicit in the transition from teacher education to professional teaching may influence teachers' goals for themselves (i.e., personal goals) and for their classrooms (i.e., classroom goal structures). An example of each personal and classroom goal is presented in Figure 1.

[Figure 1 Approximately Here]

The Canadian Context: Teacher Education versus Teacher Practice

Competition within teacher education programs in Canada is high because job opportunities at all levels are low. This circumstance is a result of increases in the number of teachers being educated in Canadian teacher education programs paired with a steady decline in the number of teacher retirements. Thus, whereas 10 years ago most teachers secured permanent teaching positions quite easily, a recent study from Ontario, Canada's largest province, shows that 80% of first-year teachers are unemployed and struggling to even find daily work as a substitute teacher (Ontario College of Teachers, 2012). The headlines paint a similarly bleak picture for most Western provinces (Dedyna, 2011; Mason, 2011) with this surplus continuing to grow. Despite this negative forecast pre-service teachers appear optimistic (although perhaps unrealistically so) about their career prospects and their ability to be a good teacher (MacDonald, 2011).

Graduates who find permanent positions in Canadian schools exist in a different achievement context. In Canada, external evaluation of teachers based on their pupils'

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

performance is quite low and job security is usually assured after a probation period of approximately one year is completed. The province in which this data was collected distinguishes between General Contracts that offer ongoing employment and Limited Contracts that specify the duration of employment with a fixed termination date. According to either contract, teachers are considered to have passed their probationary period on the first day of their second year of a contract and thus are protected from termination (Manitoba Teachers' Society, 2009). However, even though teachers are not formally evaluated on the basis of their students' achievement scores (Canadian Teachers' Federation, 2003, p.2), they are still responsible for ensuring that their students meet curricular outcomes both according to teacher-created assessments and standardized testing, which is common across Canada (Zwaagstra, 2011).

According to achievement goal theory these contextual differences, summarized in Figure 2, may exert different influences on beliefs related to personal and classroom goals. In terms of personal goals, pre-service teachers exist in a competitive and graded education programs where they need to demonstrate superiority relative to their peers in order to secure teaching position, whereas new practicing teachers who have successfully gained a position exist in an environment where their own job is relatively protected. The opposite may be true for classroom goal structures: Pre-service teachers' intentions exist without the real pressure of ensuring the achievement of their pupils, whereas practicing teachers must meet the demands of school-aged students, parents, and administrators. Both teacher education and teachers' classrooms represent achievement settings, but with different standards, referents, and stakes and therefore they may exert different effects on personal versus classroom goals.

[Figure 2 Approximately Here]

Influence of Personal Goals

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

Within the context of pre-service teacher education and practicing teachers' classrooms, an ever-expanding body of evidence suggests that personal mastery-approach goals and similarly operationalized mastery goals (Butler, 2007) are most advantageous for psychosocial and professional outcomes. Using the 2 x 2 framework Daniels, Stupnisky, Perry, Mandzuk, and Clifton (2008) showed that pre-service teachers' mastery-approach goals protected them from boredom and enhanced enjoyment, efficacy, and commitment (see also Nitsche, Dickhäuser, Fasching, & Dresel, 2011). Malmberg (2008) showed that mastery-approach increased reflective thinking and intrinsic motivation in pre-service teachers. Butler (2007) showed that mastery positively predicted a preference for autonomous help and Nitsche et al. (2011) found that mastery negatively predicted perceived threats of help-seeking and positively predicted self-efficacy and the perceived benefits of help-seeking. Retelsdorf, Butler, Streblow, & Schiefele (2010) showed that mastery goals encourage interest and protect teachers from burnout. Likewise two studies showed that mastery goals positively predicted attendance at professional development workshops and reduced the number of sick days, stress, and likelihood for early career departure (Fasching, Dresel, Dickhäuser, & Nitsche, 2010; Nitsche, Dickhäuser, Fasching, & Dresel, 2013).

At the same time as documenting these advantages for mastery goals, these studies report drawbacks for the other types of motivation. Avoidance goals are particularly maladaptive. For example, performance-avoidance has been positively associated with task-irrelevant behavior (Malmberg; 2008) and negatively associated with efficacy (Cho & Shim, 2013; Nitsche et al., 2011). Teachers' with higher levels of ability-avoidance goals (Butler, 2007) were more likely to perceive help-seeking as threatening and experience stress and burnout (Butler, 2007; Fasching et al., 2010; Nitsche et al., 2011; Nitsche et al., 2013; Retelsdorf et al., 2010).

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

Interestingly, Butler's (2007) ability-approach goals are almost always unrelated to these outcomes, whereas the similar conceptualization of performance-approach goals (Elliot, 1999) tends to be characterized by both positive and negative outcomes. On the maladaptive side, performance-approach has been associated with pre-service teacher' task-irrelevant behavior (Malmberg, 2008). On the adaptive side, Nitsche and colleagues (2011) found performance-approach as significant positive predictor of efficacy. The non-significant role of ability-approach for practicing teachers relative to performance-approach for pre-service teachers may highlight a change in their cognitions as they trade a student perspective for that of a professional.

In total, these results reinforce the adaptive nature of personal mastery (-approach) goals in the context of pre-service teacher education and professional teaching. Thus, it is encouraging that all of the studies reviewed above reported mean levels of personal mastery goals that are higher than any other goal (Butler, 2007; Daniels et al., 2013; Fasching et al., 2010; Nitsche et al., 2011; Nitsche et al., 2013; Paulick, Retelsdorf, & Möller, 2013; Retelsdorf et al., 2010; Retelsdorf & Günther, 2011). Ideally this suggests that pre-service teachers retain their beliefs related to personal mastery-approach when they start teaching, however, no research has explicitly compared changes to personal goals during this transition.

Classroom Goal Structures

Pre-service (Daniels et al., 2013) and practicing (Retelsdorf et al., 2010) teachers' support for classroom mastery practices appears to be nearly double their support for classroom performance practices. As alluded to above, classroom mastery goals are beneficial because, for school-aged students, they provide a contextual influence on personal mastery goals. Students who perceive their classrooms as mastery oriented tend to have stronger endorsement of personal

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

mastery-goals (Bong, 2005; Lau & Nie, 2008; Wolters, 2004), higher achievement, greater effort, more persistence, and less procrastination (Lau & Nie, 2008; Wolters, 2004). Moreover, Ciani, Middleton, Summers, and Sheldon found that elements of mastery such as students' perceptions of autonomy support and classroom community "erased the negative effect of a perceived performance classroom goal structure" (p. 88, 2010). Thus mastery practices are important even in performance-oriented contexts.

Although a contextual influence on personal goals for students, classroom goal structures function differently for practicing teachers. Specifically, teachers enact the classroom goal structures and therefore they may be influenced by other personal or contextual variables. For example, some evidence has accumulated supporting a complementary relationship between pre-service and practicing teachers' personal achievement goals and the classroom goals they establish (i.e., personal mastery associated with classroom mastery; Daniels et al., 2013; Retelsdorf et al., 2010). In other words, teachers who believe in mastery for themselves tend towards mastery practices in their classrooms. In terms of context, Cho and Shim (2013) showed that teachers' perceptions of their school goal structure exerted an influence on their personal achievement goals. Moreover, teaching efficacy moderated this effect such that teachers' with higher efficacy were more likely to be able to adhere to mastery beliefs even in a school where performance goal structures were common.

Stability and Change

Considering the advantages of both personal and classroom mastery goals, one would hope that movement through a teacher education program would encourage pre-service teachers to become more mastery-oriented themselves (as some evidence suggests e.g., Malmberg, 2008) and to be able to retain this personal perspective on motivation as practicing teachers. Although

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

personal mastery-approach appears to be strongly endorsed by both pre-service and practicing teachers (e.g., Retelsdorf et al., 2010; Retelsdorf & Günther, 2011), to date no research has explicitly examined the change across the transition. **This is important to do because of the changes in the nature of the achievement context.** The ideal pattern of change during the transition from pre-service to practicing teacher would be to see increases or stability in already high levels of personal and classroom mastery goals paired with decreases or stability in already low levels of personal and classroom performance goals. **This pattern would result in the greatest likelihood that practicing teachers and their students experience mastery and its associated adaptive outcomes.**

Three studies have examined changes to personal goals during teacher education. Malmberg (2006) found that pre-service teachers who entered teaching for intrinsic reasons were likely to have had mastery goals during high school and to have mastery goals during their teacher education program, whereas those who reported extrinsic reasons for pursuing teaching tended to have performance-approach or -avoidance goals during high school and their education program. Subsequently, Malmberg (2008) found that all goal types increased over the course of a teacher-education program in Finland; however, mastery goals increased more strongly than either performance-approach or -avoidance goals. In contrast, Fasching, Dresel, Dickhäuser and Nitsche (2010) found that mastery, performance-approach, and performance-avoidance goals all decreased over the course of a two-year German teacher education program.

In trying to reconcile these differences I borrow evidence from the student literature that shows the main trigger for stability or change appears to be changes in achievement environments and related levels of evaluation (e.g., Anderman & Anderman, 1999; Anderman & Midgley, 1996; Meece & Miller, 2001; Seifert, 1996; Shim, Ryan, & Anderson, 2008;

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

Tuominen-Soini, Salmela-Aro, & Niemivirta, 2011; Urdan & Midgley, 2003). In the school-aged student literature, it seems that as students move into higher grades and/or experience higher levels of assessment they come to endorse personal mastery-approach goals less and performance-avoidance or –approach goals more strongly. In Finland admission to education programs can be quite competitive, qualification standards are quite high, and the job prospects can be competitive in major centers (Malmberg, personal communication, June 17, 2013), thus increases in all goals seems reasonable. In contrast, in Germany students are admitted to teacher education programs following completion of “Gymnasium” or the highest academic track of compulsory education. As such, the achievement demands associated with education programs, particularly at the elementary level, may be less than those in Gymnasium (Frenzel, personal communication, June 18, 2013), thus decreases in all goals seems reasonable. The current study stands to contribute to this body of research by following teachers across an even more striking change in achievement setting: that from pre-service to practice.

Conceptual Framework and Hypotheses

Within the purview of achievement goal theory two sets of constructs are important and are influenced by the achievement context: personal achievement goals and classroom goal structures. For pre-service teachers transitioning into practice personal achievement goals may respond to a decrease in the competitiveness of the achievement setting because they have secured a teaching position. In contrast, their intended classroom goal structures may respond to the realities of meeting achievement standards thus reflecting an increase in evaluation. Thus there are two logical questions to be answered as pre-service teachers become practicing teachers: First, do pre-service teachers’ personal achievement goals change over the transition to becoming a practicing teacher? Inasmuch as their work environment represents less of a

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

competitive achievement setting for teachers relative to their education programs, I hypothesized that personal mastery approach goals would increase or remain stable at a high level and personal performance approach goals would decrease or remain stable at a low level. Second, do pre-service teachers' intended classroom goals align with the instructional practices they report using as practicing teachers? Inasmuch as schools represent a competitive achievement setting for teachers' pupils, characterized by testing, accountability, and comparison, I hypothesized that classroom mastery goal structures would decrease and classroom performance goal structures would increase to meet these external demands. The change or stability noted in personal and classroom goals is important because motivational beliefs are associated with personal and professional outcomes (e.g., Daniels et al., 2008; Malmberg, 2008; Retelsdorf et al., 2010) that can help or hinder new teachers during their first years of teaching.

Method

This longitudinal study spanned two years and involved both quantitative survey methods as well as qualitative focus groups. The surveys used pre-existing validated scales that were slightly revised to focus on pre-service or practicing teachers. The focus groups dealt with a range of topics pertaining to the transition from pre-service to practicing teacher and, for the purposes of this study, were examined for comments relating to changes in personal and classroom motivation during this transition.

Participants

Results presented this study are based on quantitative longitudinal survey data from 47 practicing teachers ($n = 34$ female, $n = 13$ male), seven of whom (six women and one man) also provided follow-up qualitative data through focus groups. All participants completed their Bachelor of Education degree at a Canadian Research Intensive university two years prior to the

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

second data collection point and were employed in some teaching capacity (e.g., substitute teaching, full time, part time, maternity replacement, etc.) in the same province. The participants ranged in ages from 22-44 years old ($M = 26.66$ years). Twenty-seven reported teaching in elementary schools and 19 in secondary schools (1 did not complete).

Procedure

Data collection took place at three distinct time points. First, 151 pre-service teachers ($n = 88$ female, $n = 50$ male, $n = 13$ did not report) completed a pencil and paper survey during the last few weeks of their B.Ed. program (Time 1). Although the omnibus survey contained several questionnaires only items related to personal goals (Elliot & Muryama, 2008) and classroom goal structures (Midgley et al., 2000), slightly reworded to be appropriate for pre-service teachers, were used in the current analyses of stability. At the end of this survey, pre-service teachers were asked if they would like to be contacted in the future for potential follow-up. Of the original 151, 86 released their contact information to the researcher to retain for follow-up. Two years later (Time 2), the researcher approached the 86 willing participants to complete another omnibus survey, from which again only items related to personal and classroom goals will be included here. Sixty-two percent of those who had consented to follow-up ($n = 53$, $n = 39$ female, $n = 14$ male) completed the follow-up survey which was administered using SurveyMonkey[®] software. Of these 53, 6 were not teaching in any capacity and the remaining 47 were involved with teaching in some form (e.g., substitute teaching, full time, part time, maternity replacement, etc.) and thus formed the sample for the current study.

Despite this large amount of attrition *t*-tests showed that the pre-service teachers who consented to be contacted for follow-up ($n = 86$) did not differ from those who completed the original survey but did not want to be contacted ($n = 65$) in terms of gender or goal measures.

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

The only difference between those participants who, after consenting to be contacted, actually completed the survey ($n = 53$) and those who did not ($n = 33$) was on personal performance-approach goals, which were more strongly endorsed by pre-service teachers who choose to not participate ($M = 12.76$, $SD = 3.60$) than those who did ($M = 11.28$, $SD = 3.13$), $t(149) = 2.45$, $p = .02$. Because of this existing difference, I controlled for original levels of performance-approach goals in all analyses at the sample level. Participants were entered into a draw for a \$100 gift card to Chapters bookstore at the end of each survey (Time 1 and 2). So as not to be coercive, participants were unaware of this remuneration until after they participated.

At the completion of the online follow-up survey (Time 2), the practicing teachers were given an additional opportunity to participate in focus groups conducted several months later (Time 3). Focus groups were conducted at the practicing teachers' alma mater university in a boardroom in the Faculty of Education. The facilitator supplied beverages and snacks for the participants. Each participant granted permission for audio recording and agreed to respect the confidentiality of the other group members. In addition they were asked to avoid identifying information about their current schools and/or school districts. The focus groups lasted approximately 1.5 hours and participants were each remunerated \$20 for their time and transportation costs. Given the distance between each data collection point, informed consent was collected on each occasion.

Measures

Achievement goals. Personal achievement goals were assessed through Elliot & Murayama's (2008) Goal Orientation Scale-Revised that is designed to measure approach and avoidance dimensions of mastery and performance goals (1 = *strongly disagree*; 5 = *strongly agree*). At Time 1, when the participants were pre-service teachers, the instructions were

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

presented as follows: “The following 12 statements are about goals you may have had during your Bachelor of Education program. Reflecting on your two years in the program and your current feelings as you get ready to graduate, please indicate your level of agreement or disagreement with each item.” At Time 2 participants completed the 12 items thinking about themselves as a teacher. The instructions were: “When you think about being a teacher, to what extent does each of the following items reflect your goals?” A sample of each item is available in Table 1 along with the means, standard deviations, and alpha reliability coefficients for all the study variables.

[Table 1 Approximately Here]

Classroom goal structures. The Patterns of Adaptive Learning Scale (PALS; Midgley et al., 2000) was used to assess instructional practices as indicative of either mastery or performance classroom goal structures. At Time 1 the instructions were presented as follows: “The following items are about what type of classroom you intend to establish once teaching. Please think about things you plan to do when you have your own classroom” (1 = *strongly disagree*, 5 = *strongly agree*). In contrast, the Time 2 instructions were: “Rate the extent to which each of the following items reflects something you may do in your classroom”.

Focus group protocol. After briefly introducing herself, the facilitator introduced the purpose of the focus groups to discuss their transition from pre-service to practicing teacher. To give direction to the conversations, participants were asked to review a list of Elliot and Muryama’s (2008) personal achievement goal items and consider how their goals may have changed since being a student.

Rationale for Analyses

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

Three stability analyses were conducted to compare 47 participants' responses to Elliot and Murayama's (2008) Achievement Goal Questionnaire-R and Midgely et al.'s (2000) classroom goal structures (PALS) at the end of their education program and two years later once they were practicing teachers. First, partial correlations between all variables while controlling for initial levels of personal performance-approach goals were used to measure differential continuity, or the rank-order change within the sample over time. Second, repeated measures analysis of covariance (RM-ANCOVA), with initial levels of performance-approach goals entered as covariate and teaching level entered as a between-subjects variable (elementary $n = 19$; secondary $n = 24$), was used to measure mean-level changes within the sample. I hypothesized a moderate level of stability in these analyses conducted at the sample level. Third, to examine change at the individual level rather than the sample level, reliable change index was calculated (RCI; Christensen & Mendoza, 1986; Jacobson & Truax, 1991). RCIs represent the difference between Time 1 (T1) and Time 2 (T2) scores divided by the standard error of the difference score. Thus, RCI values follow the normal curve, meaning that values less than -1.96 or greater than 1.96 should represent 5% of the sample. RCIs are then categorized as a decrease (< -1.96), an increase (> 1.96), or no change ($-1.96 >$ but < 1.96) and a chi-square test set to 2.5%, 95%, and 2.5% for each category respectively, is used to determine whether or not the change scores are random or meaningful. I hypothesized meaningful change to personal mastery-approach, performance-approach, classroom mastery goals, and classroom performance goals because the contextual influences on these sets of beliefs appear to differ most across the two achievement contexts.

To elaborate on these quantitative analyses, the focus groups were transcribed verbatim and examined for statements pertaining to goals and changes in goals across time. This analysis

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

occurred after the quantitative analyses and I intentionally looked for statements that corresponded with or diverged from the numerical data. I approached the analysis from a social constructivist (Gergen, 1985) epistemological orientation, acknowledging my bias that because these teachers shared similar experiences they would most likely construct a shared meaning of changes to their goals. I used a brief content analysis through the scissor-and-sort technique (Stewart, Rook, & Shamdasani, 2006). As per Stewart and colleagues, I first identified the portions of the transcript that were most relevant. In this case it was dialogue that emerged in response to the following direct question: “Do you feel your goals have changed from when you were a student?” Based on the quantitative results my original classification scheme had three components that I used to code 21 pertinent comments: increases, decreases, and no change. Following this, I reread each statement to look for a more descriptive theme that would shed light on the quantitative findings and perhaps contain elements of increase, decrease, and stability within the theme. Quantitative and qualitative results are presented together.

Results

Differential Continuity

Several correlations between variables *within* each administration of the surveys should be highlighted (Table 2). For example, at Time 1 there was a negative correlation between teaching level and personal mastery goals, implying that secondary school pre-service teachers had lower mastery-approach goals than elementary. This correlation was non-significant at Time 2. As pre-service teachers, mastery-approach correlated moderately with mastery-avoidance and performance-approach; however, again, at Time 2, these relationships were no longer significant. In contrast, personal performance-approach, mastery-avoidance, and performance-avoidance

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

demonstrated moderate to strong intercorrelations when completed as both pre-service and practicing teachers.

[Table 2 approximately here]

In terms of correlations between the Time 1 and Time 2 assessment of each variable, in partial support of the hypotheses, three relationships were significant. Time 1 personal mastery-approach goals were positively correlated with their Time 2 assessment, as was the case for classroom mastery goal structures and classroom performance goal structures suggesting that the endorsement of each of these variables from the pre-service perspective correlated positively with their endorsement from the perspective of practicing teachers. The correlations suggest that practicing teachers' mastery-approach, classroom mastery, and classroom performance beliefs may be somewhat stable across the transition from pre-service.

From the focus groups I identified a theme labeled *growth*, which provides additional information on the notion that teachers continue to focus on mastery goals, in particular, in their practice. Four statements from four different individuals gave rise to this theme and generally described how teachers are motivated to grow, pursue professional development, and improve, all of which share an underlying philosophy of approaching an achievement task to improve competence. Specifically, one teacher said "There's always something new to learn. So you're never complete in your learning." Although another teacher explicitly said, "You're never going to reach mastery" she qualified the statement with a very mastery-approach description "You're always going to be learning and changing," perhaps highlighting a difference in terminology.

Mean-level Change

Six RM-ANCOVAs controlling for Time 1 performance-approach goals and examining teaching level as a between subjects variable were conducted, one for each variable. Because of

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

the small sample size, a traditional alpha level of .05 was retained. Personal mastery goals, both approach, $F(1,41) = 2.21, p > .05$, partial $\eta^2 = .05$ and avoidance, $F(1,41) = 1.28, p > .05$, partial $\eta^2 = .03$ demonstrated stability over the transition into teaching. The other motivation beliefs showed evidence of instability. Endorsement of classroom performance goal structures increased over the transition to practice for both elementary and secondary school teachers, $F(1,41) = 5.84, p < .05$, partial $\eta^2 = .11$. Two comparisons showed a significant decrease from pre-service to practicing equally for elementary and secondary teaching levels: personal performance-approach goals $F(1,41) = 5.29, p < .05$, partial $\eta^2 = .11$ and personal performance-avoidance goals $F(1,41) = 16.01, p < .001$, partial $\eta^2 = .29$. Classroom mastery goal structures also decreased from pre-service to practicing, but a significant interaction revealed the change was more pronounced for secondary school teachers $F(1,41) = 6.13, p < .05$, partial $\eta^2 = .13$. (Figure 3).

[Figure 3 approximately here]

A theme from the focus groups called *normative comparison* has the most relevance to these quantitative results. Eleven statements comprise this theme with the majority (8 statements) helping to explain why personal performance-approach goals decreased significantly for both elementary and secondary school teachers. Two particularly illustrative quotes are "...I learn from other people and I work with other people, I would never want to be better or worse than them. I just want to be colleagues;" "I try to be better than other people as student teacher but I would never strive to be better than other teachers - if that makes any sense." Moreover, one teacher directly acknowledged that the university is a more competitive setting than a school.

However, two teachers pointed out that, particular early on in a teaching career, competition still exists: "You are in competition with other teachers. If there's too many teachers

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

at your school, and there's only one position the next year, you want to be the best you can be but you also want your principal to notice. It's not a competition, but it is when you don't have job it is a competition." And "In my first year it was a big deal cause I felt like, I like to verify my existence in the school, like I had to prove that I was just as good as everyone else, but then after you kind of do that, then you've, I started to veer away from that."

Individual Level Change

The Reliable Change Index (Jacobson & Truax, 1991) was used to determine how many participants decreased, stayed the same, or increased on each variable. The percentage of participants classified into each of these categories is presented in Table 3. Contrary to my conservative hypotheses, chi-square statistics suggested meaningful change (i.e., a distribution that would not be expected at random) on all variables. However, the largest changes were noted for they hypothesized variables. Specifically, 44.2% of teachers increased on personal mastery-approach goals and 37.2% on performance classroom goal structures. In contrast, classroom mastery goal structures (62.7%) and personal performance-approach goals (53.5%) had the largest decreases.

[Table 3 approximately here]

The teachers in the focus groups offered many direct statements about how their motivation changed from being a pre-service teacher to becoming a teacher, and thus *change* was viewed as a theme. Comprised of four statements from four different participants, this theme broadly supports the results of the RCI analyses. In general, the comments included in this theme reflect a pattern in which personal mastery-approach becomes more important during practice and personal performance-approach goals are left behind at university. For example, one teacher said "I think your main focus as a student teacher is to get a job.... But as a teacher

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

your goals are different. You want to be the best you can be you want to always be learning....”

Another teacher explained: “I’ve just been in school for almost 7 years and so you are in a competitive grades, scholarships, money, getting a job kind of mind set, whereas now you’re in a more being peaceful in what you’re doing in the classroom sort of place.”

Discussion

As with the literature on goal stability for students, the transition from pre-service to practicing teacher reveals both stability and change across achievement environments. Four findings are particularly important to highlight. First, change was most consistently recorded for personal performance-approach and performance-avoidance goals, which showed statistically significant decreases from pre-service to practicing in all three analyses. Interestingly, this pattern was strongly supported by teachers’ own comments but was also the one topic about which teachers had divergent opinions: Some saw no place for competition in their jobs whereas others did. Second, personal mastery-approach goals remained stable or increased over the transition whereas personal mastery-avoidance remained stable or decreased over the transition. Third, when change was found for either mastery or performance classroom goal structures, it was in an undesirable direction: classroom mastery decreased and classroom performance increased. Fourth, the stability patterns for personal compared to classroom goals are reversed.

Personal Performance-Approach and -Avoidance Goals Decrease

In all three analyses personal performance goals, approach and avoidance, showed instability **in terms of a reduction** from pre-service to practice. ~~First, the correlations between personal performance goals endorsed as a pre-service teacher and as a practicing teacher were non-significant suggesting no relationship (i.e., instability) between the two ratings. Second, the RM-ANCOVAs were significant suggesting change in the mean level endorsements of the~~

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

~~sample. Third, the RCI distributions were not normally distributed, suggesting a meaningful change at the individual level. As far as direction, overwhelmingly the results point to a decrease in personal performance-approach and -avoidance goals from pre-service to practicing teacher.~~

This means that new teachers feel less driven by performance goals and by extension are less likely to suffer some of the negative outcomes that are commonly associated with performance-approach or -avoidance goals such as low efficacy or task-irrelevant behavior (Malmberg, 2008).

These results expand the work of Fasching and colleagues (2010) who showed that personal performance-approach goals decreased during an education program. The results also align with the premise that personal performance-approach and/or -avoidance goals increase as achievement environments become more competitive or evaluative (i.e., elementary to middle school, Anderman & Anderman, 1999; Anderman & Midgley, 1996; Bong, 2005; Urdan & Midgley, 2003). For Canadian practicing teachers, however, the pattern is reversed because as they explained in the focus group their new achievement environment is in many ways characterized by less competition than their education program and thus performance goals can be less salient. This is a unique finding because no research has examined a contextual shift in which evaluation becomes *less* salient. However, two teachers continued to feel competition in the early years of their careers, primarily over the need to prove themselves and retain a position in an economic climate where securing a teaching position is not always easy (Ontario College of Teachers, 2012).

Personal Mastery Goals

Approach: High and stable Personal mastery-approach goals showed stability over the two assessments at the sample level. ~~Specifically, a moderate positive correlation emerged between pre-service and practicing teachers' endorsement of mastery-approach goals and the~~

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

~~RM-ANCOVA was non-significant also suggesting similarities between the assessment points.~~

This means that pre-service teachers with mastery-approach goals appeared to retain that perspective once they transitioned into the role of practicing teacher, a trend that aligns with some of the existing research with student samples (e.g., Smith, Sinclair, & Chapman, 2002). This finding also supports the high mean levels of endorsement of mastery goals that have been found separately for pre-service (e.g., Daniels et al. 2013) and practicing (e.g., Butler, 2007) teachers. At the individual level, change was noted in an adaptive direction: When they changed, personal-mastery approach goals increased and were endorsed more strongly after the transition to being a practicing teacher. This is particularly impressive given that mastery-approach goals were rated more strongly than any other personal goal at both the pre-service and practicing level, suggesting that regardless of stability or change mastery-approach remained at the top of the rank order (see Fryer & Elliot, 2007 for similar results with students). Again, the focus group responses showed how for many respondents the idea of continued growth and mastery was also associated with a decrease in performance-approach goals.

Encouragingly, novice teachers who enter the profession with high levels of mastery-approach goals stand to reap a host of adaptive outcomes including healthier emotions, more efficacy, willingness to seek help, and protection from burnout (e.g., Butler, 2007; Daniels et al., 2008; Retelsdorf et al., 2010). All of these characteristics likely help novice teachers be successful in their first years of teaching. By extension, the pupils of these teachers stand to benefit in at least two ways. First, some research suggests that teachers' transmit their emotions to students (Frenzel, Goetz, Lüdtke, Pekrun, & Sutton, 2009). Inasmuch as teachers with mastery goals are poised to experience increased enjoyment, and reduced boredom, anxiety, and stress we can infer that their students may "catch" these positive outcomes. Second, teacher

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

efficacy, an outcome associated with mastery-approach goals, has been linked to objective measures of teaching effectiveness (e.g., Klassen, Tze, Betts, & Gordon, 2011). This means that school-aged students may have more effective teachers when those teachers believe in mastery.

Avoidance: Stable or decreasing. The results for personal mastery-avoidance goals were the least systematic: one sample level result indicated instability, the other stability, and the RCI showed a marked decrease. The decrease is in keeping with a shift away from a competitive achievement setting and suggests that these novice teachers may be experiencing at least some success that allows them to protect their approach motivation and relinquish avoidance (e.g., Smith et al., 2002). Although not a specific theme in the focus groups, some comments suggested that the avoidance items simply didn't make sense in the professional context and thus future research needs to consider what avoidance motivation may look like or mean to practicing teachers. This notion is discussed further in the limitations section.

Classroom Goals: Increase for Performance and a Decrease in Mastery

Both classroom goals structures appeared stable according to correlational analyses but then showed change according the RM-ANCOVA and RCI. However, the changes were in opposite and undesirable directions: Classroom mastery goal structures decreased whereas classroom performance goal structures increased. These changes may be in response to the realities of teachers' new achievement setting in which they are responsible for student achievement and perceive that classroom performance goal structures may be more successful in meeting this responsibility than mastery goal structures. Further support for this argument is evidenced by the fact that novice high school teachers, who would have the most external testing imposed on their students, experienced a much steeper drop in mastery goal structures than elementary school teachers, keeping with existing research on goal differences reported by

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

practicing teachers (Retelsdorf et al., 2010). Although beyond the scope of the current research, the implications of this drop are important because it suggests that school-aged students, particularly high school students, may experience fewer mastery-oriented classrooms and in turn may not have their own personal mastery-approach goals supported (e.g., Lau & Nie, 2008).

Keep in mind, these teachers have by no means abandoned classroom mastery goal structures but simply decreased their endorsement since beginning to teach professionally. Imagine, for example, a teacher who originally thought she would allow as many rounds of revision as a student desired before marking a final paper, and in reality had to restrict the opportunities for revision in order to submit grades before a parent-teacher conference. Despite the significant decline in classroom mastery goals they remained much more strongly endorsed than performance classroom goal structures, paralleling Fasching and colleagues (2010) work on personal goals. It seems likely that pre-service teachers overestimated their ability to implement mastery practices and had to increase their endorsement of performance practices in light of their responsibilities for student learning in their new achievement environment.

Personal Goals vs. Classroom Goals

Existing literature has largely painted a picture of symmetry between personal and classroom goals. Pre-service teachers' personal mastery-approach goals predict an inclination towards classroom mastery goals (Daniels et al., 2013) and students in mastery classrooms are inclined towards personal mastery-approach goals (e.g., Wolters, 2004). The change and stability indicated in the current results do not reflect this symmetry: personal mastery-approach increased but classroom mastery practices decreased and personal performance-approach and – avoidance decreased but classroom performance practices increased. This lack of symmetry may reflect the possibility that teachers interpret the context differently for their own goals versus

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

those they enact for their students. For example, although practicing teachers may view the school as less competitive for themselves they may experience increased pressure to ensure that their students excel thus increasing their endorsement of classroom performance goals. This finding is particularly important for two reasons: First, it documents how personal goals may change when external evaluation decreases over a transition, essentially the opposite of most educational transitions. Second, it reinforces that teachers interpret educational contexts both for themselves and in relation to their students.

Limitations and Directions for Future Research

The results of this study should be interpreted in light of the following four limitations. First, the 53 participants who completed the follow-up survey had lower levels of performance-approach goals than the 33 participants who did not complete the survey. I can only speculate why performance-approach participants were less likely to participate: Perhaps they viewed the surveys as contrary to their teaching goals. Perhaps they were busier trying to prove their competence relative to those with mastery goals. Or perhaps those with mastery goals viewed the survey as type of professional development or opportunity to reflect on their practices. Nonetheless, despite controlling for initial levels of performance-approach goals, this difference may have altered the results significantly. The most divergent possibility is that those with higher performance-approach goals who did not complete the survey would have in fact retained those goals once practicing, because they were firm believers in personal performance-approach. The data does not allow me to address this alternative, and thus the conclusion is left to the discretion of readers. In addition to these specific effects, self-selection more generally could potentially mask stability and change due to ceiling effects, regression to the mean, or other artifacts.

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

Second, the small sample size is problematic. It is possible that a larger sample would have shown change when I found stability or shown stability when I found change. Additional analyses were also precluded because of the small sample. For example, it would have been advantageous to conduct confirmatory factor analyses to ensure that pre-service and practicing teachers responded to the scales equivalently (i.e., measurement and scalar invariance; Chen, 2008; Little, 1997). Likewise, ipsative change analysis provides additional information about the shape and scatter of change at the individual level but was not possible here (Cronbach & Gleser, 1953). Thus, although the picture of stability and change presented here is empirically sound, aligns with some existing empirical research, and is supported by the tenets of achievement goal theory, it may be incomplete.

Third, two measurement issues are present. In order to examine change I used Elliot & Murayama's (2008) scales to measure personal achievement goals in both pre-service and practicing teachers. I did this because at the time of first data collection the participants were students and I wanted to have consistent measurements to examine for change. As a result I had to tailor the instructions to pre-service and practicing teachers. By extension certain characteristics of the scales, especially the avoidance items, may not be equally appropriate in each context. Future research can examine the extent to which different types of goals measures (e.g., Butler, 2007; Nitsche et al., 2011) and referents are equally valid in this type of longitudinal design. The other measurement issue addresses the fact that self-reported classroom goal structures were not corroborated by classroom observations. This limitation means that teachers' reports may not line up with their actual practices and there may be some over- or under-estimation inherent in the self-report data for which the analyses did not account. Future research needs to bring multiple sources of data to bear on these types of questions. However,

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

given the focus on this study was to evaluate change or stability of goals as personal resources teachers bring to the profession, neither of these limitations should not be considered a serious detriment to the studies overall results.

Fourth, this study is limited in its ability to comment on the actual experience of the transition from pre-service to practicing teacher. Because the practicing teachers did not answer questions specific to the nature of their achievement setting or about their personal successes and failures during their first year(s) teaching, it is possible that the increase in mastery-approach and decrease in performance goals may be qualified by some other variable. Specifically, given the existing evidence that students tend to decrease both types of goals following negative achievement feedback (e.g., Senko & Harackiewicz, 2005), it is possible that novice teachers who have a particularly tough transition may experience a general dip in approach motivation and spike in avoidance motivation in response to their difficulties. This, however, remains a question for future research.

Implications

Whether or not we expect or even want pre-service teachers' personal goals and intended classroom practices to change across the transition from pre-service to practicing largely depends on the extent to which they reflect adaptive goals at the time they graduate. The results from this study build on others (e.g., Daniels et al., 2013) and suggest that as they near graduation this sample of pre-service teachers endorsed mastery-approach goals more strongly than any other personal goal orientation. Moreover, these adaptive beliefs were reported despite competition within an education program, competition to secure jobs in a surplus market, and despite their future students existing in an educational system characterized by accountability. This is encouraging because mastery continues to be associated with a range of adaptive personal and

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

professional outcomes for teachers (e.g., Butler, 2007; Retelsdorf et al., 2010) and by extension for their students (e.g., Frenzel et al., 2009; Lau & Nie, 2008). In accomplishing this laudable task, teacher education programs need to identify components of their programs that implicitly or explicitly orient their students' towards personal and classroom mastery goals to and ensure these components are honed. Because of these high levels of personal mastery goals, we would hope to see little change in these motivation beliefs as a result of pre-service teachers' transition into a new achievement setting. Indeed, as practicing teachers, the profile in terms of personal achievement goals looks similarly optimistic. Most practicing teachers remained at a high level of personal mastery, or became even more mastery-approach oriented. At the same time, personal performance-approach goals and avoidance goals decreased. This pairing suggests that perhaps schools represent a new type of achievement setting in which competition is less central and working towards becoming an increasingly competent teacher dominates. Future research may want to identify specific schools in which teachers are able to sustain their personal mastery goals and identify components that facilitate this adherence. *Moreover, this suggests that new teachers may reap the positive personal benefits associated with high levels of mastery-approach, and their students may reap the benefits of efficacious and happy teachers (e.g., Frenzel et al., 2009; Klassen et al., 2011).*

For classroom goals the pattern of change was less optimistic, although the absolute levels remain encouraging. Although the results showed that from pre-service to practicing teachers tend to decrease their endorsement of classroom mastery practices and increase their endorsement of classroom performance practices, when considered in relation to each other mastery is still largely favored. This might suggest that although their new achievement setting is less competitive personally, teachers recognize the need for their students to achieve and

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

default to the performance practices endorsed by the larger education system. For example, a senior biology teacher may have planned a series of dissections through which students create maps of the digestive system based on their own observations, but decide instead to use a figure from a textbook to show the processes exactly as they often appear on the final standardized exam. This type of shift might suggest that pre-service teachers are overly optimistic about the feasibility of implementing classroom mastery practices in a school system that remains largely performance based. This speaks to a commonly referenced divide between teacher education and practice. Although there may be some advantages to pre-service teachers having a more realistic view of their professional obligations and circumstances, research still suggests that teacher education programs focus on inculcating a deep belief in mastery classroom practices and helping students enact these practices even in a performance-based education system (Ciani et al., 2010). One way to bridge the divide between teacher education and practice may be to identify additional factors that can help teachers' sustain mastery beliefs, such as efficacy (Cho & Shim, 2013). Interventions aimed at increasing and sustaining these beliefs in actual teaching contexts may also be necessary.

From a theoretical perspective these results are important because they reinforce the currency of achievement goal theory (Elliot & Murayama, 2008) as a framework to study both pre-service and practicing teachers. Although both the quantitative and qualitative data suggest that goals changed across the transition from pre-service to practicing, there was little evidence that any single personal orientation became irrelevant. More practically, these results imply that this Canadian teacher education program graduates teachers with adaptive motivational beliefs. In this case specifically pre-service teachers graduated with higher levels of personal and classroom mastery goals than any other motivational perspective, suggesting that their teacher

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

education program did something to help inculcate, nurture, and sustain these adaptive motivational beliefs. At the personal level, mastery appears to become even more central once securing a teaching position. And, although, classroom mastery goals drop to some extent, they are still greatly favored over performance practices. This comparison may suggest that schools are making changes to support mastery practices even as competition, testing, and accountability remain prominent (Ciani et al., 2010). Overall the prospect for the students of these new teachers is encouraging. According to these results, they have teachers who are themselves personally motivated towards mastery and who try to establish classroom environments that support mastery for students as well.

CHANGES IN GOALS FROM PRE-SERVICE TO PRACTICING

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